

## Catch the Vision

NASA's missions into earth orbit or distant planets all begin the same way, with a rocket streaking into space. Stakes are high when racing into the sky at thousands of miles per hour; everything has to go right because once the engines ignite there's no turning back.

I'm Tiffany Nail, launch services specialist with NASA's launch services program.

Launching a rocket is a tricky task that reaps out of this world rewards.

When missions like the Mars Rovers reach space and safely land, the world is treated to stunning sites and amazing discoveries.

The job of making such missions take flight belongs to NASA's Launch Services Program or LSP for short.

Based at Kennedy Space Center in Florida, the LSP offers guidance and oversight for rocket launches. With its team of world class engineers, the program bridges the gap between spacecraft and rocket, making sure the two machines perform as one.

Here's how it works: at NASA centers around the country, spacecraft missions begin taking shape up to 10 years before lift off. When scientists develop missions to seek answers to the universe's greatest questions, it's important to consider what type of rocket to use.

After the rocket is selected, the team's role transitions from consultant to project manager. At this point the program assigns a four person mission integration team to orchestrate the rest of the work. Headed by the mission manager or MAM, this team directs the dozens of engineers who will oversee the day to day details of the launch.

Speaking of launch, the day is getting close, but LSP's job isn't done yet. In the last days before lift off LSP engineers are on the job around the clock, at the launch pad and behind the scenes making sure everything is ship shape and ready for flight.

Not wanting the public to miss out on the excitement, the LSP also sponsors pre-launch webcasts and live countdown coverage on the internet.

On launch day itself the LSP team sits side by side with spacecraft and rocket engineers, ready for anything as the clock ticks down.

*Voiceover from the Launch Director during launch activities:*

"Be advised that the range currently still is red, we're expecting radar 116 which is a mandatory asset to be back up at 1830 Zulu to support the launch."

Before finally clearing the rocket for launch, the launch manager takes a series of readiness polls. It's a chance for the team to give their thumbs up, showing that NASA and the spacecraft team are set for lift off. If all team members confirm that the rocket and spacecraft systems are ready, the NASA launch manager gives the go for launch.

Then with a "...3, 2, 1 liftoff," the rocket roars from the pad turning years of hard work and dreams into reality. It's a brilliant site to see and one that lights America's vision for space exploration as we continue to boldly venture into the solar system.